

WHAT IS CLAIMED IS:

1. A probe for applying a voltage to electrically conductive lines formed on a substrate, the probe comprising:

a conductive sheet, arranged for making contact with the lines formed on the substrate, the conductive sheet comprising a mesh sheet in which linear members are woven into a mesh and a conductive material which coats the mesh sheet;

an elastic member, arranged for pressing the conductive sheet against the lines; and

a holding member, arranged for holding the conductive sheet and the elastic member together.

2. A probe according to Claim 1, wherein the holding member comprises a block disposed between opposing inner surfaces of an inner portion of the conductive sheet, and support plates disposed on respective opposite outer surfaces of an outer portion of the conductive sheet.

3. A probe according to Claim 1, wherein the conductive material is applied to at least one surface of the mesh sheet.

4. A probe according to Claim 2, wherein the support plates do not cover lower parts of sides of the block.

5. A probe according to Claim 2, wherein the elastic member is held separately from the block by said holding member, so as to be independently movable.

6. A probe according to Claim 1, wherein the conductive material is applied to the mesh sheet in a striped pattern.

7. A probe according to Claim 1, wherein the linear members of the mesh sheet are woven obliquely with respect to a longitudinal direction in which the lines formed on the substrate extend.

8. A probe according to Claim 7, wherein an angle at which the linear members are offset from the longitudinal direction of corresponding ones of the lines formed on the substrate is in a range of 10° to 80°.

9. A probe according to Claim 1, wherein surfaces of the mesh sheet are smoothed.

10. A probe according to Claim 1, wherein a pitch of

the linear members of the mesh sheet is smaller than a width of individual ones of the lines.

11. A probe according to Claim 10, wherein the pitch of the linear members is 300 μm or less.

12. An apparatus for manufacturing an electron source, comprising:

- a probe according to Claim 1;
- a base, arranged for supporting a substrate provided with conductors; and
- a vacuum container, arranged for covering the substrate provided with conductors partially.